Legend™ 1200E WASH

User Manual

CHAUVET®

Edition Notes

CHAUVET released this edition of the Legend™ 1200E Wash User Manual Rev. 01 in July 2009.

The Legend™ 1200E Wash User Manual Rev. 01 covers the description, safety precautions, installation, programming and maintenance of the CHAUVET Legend™ 1200E Wash lighting fixture.

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Intended Audience

CHAUVET provides The Legend™ 1200E Wash User Manual Rev. 01 with each Legend™ 1200E Wash fixture. Any person in charge of installing, operating and/or maintaining the Legend™ 1200E Wash fixture should read this manual in its entirety before installing, operating or maintaining the fixture.

CHAUVET Publications Hot Line

If you have any comments about the accuracy of this document or general suggestions regarding how we can improve it, please call us at (800) 762-1084 (US callers) or +1-954-929-1115 (international callers), ext. 43.

The latest versions of all CHAUVET manuals are available at CHAUVET's web site (www.chauvetlighting.com).

Document Revision

The Legend™ 1200E Wash User Manual Rev. 01 supersedes all previous versions.

Please discard all older versions of this manual.

Fixture at a Glance

Use on Dimmer	🚫	Auto Programs	🚫
Outdoor Use	🚫	Autoswitching Power Supply	✓
Sound Activated	🚫	Replaceable Fuse	✓
DMX	✓	User Serviceable	🚫
Master/Slave	🚫	CMY Color Mixing	✓

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1. Before You Begin

What is Included

- 1 x Legend™ 1200E Wash
- 2 x Omega Brackets with hanging trigger clamps
- 1 x Warranty Card
- 1 x User Manual
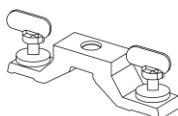
Omega Bracket
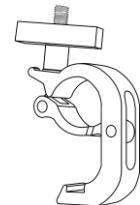
Hanging Trigger clamp

Unpacking Instructions

This product ships in a flight case.

Immediately upon receiving the fixture, carefully examine the flight case; check the contents to ensure that all parts are present, and have been received in good condition. If any parts appear damaged from shipping or the carton itself shows signs of mishandling, notify the shipper immediately and retain the packing material for inspection.

Save all packing materials because, in the event that you have to return the fixture to the factory, you may return it in its original flight case.
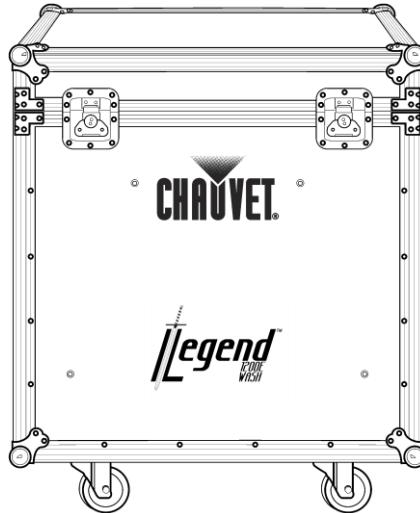
Text Conventions

CHAUVET manuals use the following text conventions, whether within the regular text or inside tables.

CONVENTION	MEANING
1~512	A range of values
50/60	A set of mutually exclusive values in the text
[10]	A DIP switch to be configured
<SET>	A key to be pressed on the fixture's control panel
Settings	A menu option that can be selected but not modified
MENU > Settings	A sequence of menu options to be followed
[1~10]	A range of menu values of which one can be selected
Yes/No	A set of mutually exclusive menu options to choose
ON	A value to be entered or selected

Icons

CHAUVET manuals use the following icons to indicate information that requires special attention on the part of the user.

ICONS	MEANING
⚠	This paragraph contains critical installation, configuration or operation information. Failure to comply with this information may render the fixture partially or completely inoperative, cause damage to the fixture or cause harm to the user.
ⓘ	This paragraph contains important installation or configuration information. Failure to comply with this information may prevent the fixture from functioning correctly.
📝	This paragraph reminds you of useful, although not critical, information.

Safety Instructions

Please read the following instructions carefully because they include important safety information about the installation, usage, and maintenance of this product.

⚠ *There are no user serviceable parts inside the unit. Any reference to unit servicing you may find from now on in this User Manual will only apply to properly CHAUVET certified technicians. Do not open the housing or attempt any repairs unless you are one of them.*

ⓘ *In the event that your unit may require service, please contact CHAUVET at (954) 929-1115.*

- Keep this manual for future consultation. If you sell the fixture to another user, make sure that they also receive this manual.
- Always make sure that you are connecting the fixture to the proper voltage, as per the specifications in this manual or on the fixture.
- Always disconnect the fixture from the power source before servicing.
- This product is for indoor use only! To prevent risk of fire or shock, do not expose fixture to rain or moisture.
- Make sure there are no flammable materials close to the fixture while operating.
- Always secure the fixture to a fastening device using a safety chain.
- Maximum ambient temperature (Ta) is 104° F (40° C). Do not operate the fixture at a higher temperature.
- In the event of a serious operating problem, stop using the fixture immediately!
- Never connect this fixture to a dimmer pack.
- Make sure the power cord is not crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.

📝 *Please refer to all applicable local codes and regulations for proper installation of this fixture.*

2. Introduction

Features

- 16 or 21-channel USITT DMX512-A moving yoke
- Pan: 540° in 2.8 sec/tilt: 270° in 1.6 sec
- 2 Color wheels
  - 14 colors + white
  - Split/linear colors
  - Rainbow color spin at variable speeds both wheels
- Variable CTC filter (3200 K)
- CMY color mixing system with vector speed adjustments
- Variable shutter
- Variable 16-bit dimming (0~100%)
- Linear zoom (5.6°~20.75°)
- Individual reset of pan/tilt, color, shutter, and zoom
- Remote fixture reset, lamp on/off, vector speed adjustments
- Built-in movement macros with range adjustments
- Built-in color macros

Additional Features

- 3-pin and 5-pin DMX connections
- User-configurable lamp ignition delay
- User-configurable maintenance reminder
- Electronic ballast with power factor correction
- Electronic power supply
- Automatic pan & tilt correction
- Pan & tilt locks
- Lamp and fixture use timer
- Power saver mode

Description

The Legend™ 1200E Wash is a moving yoke fixture with a 1200 W short arc discharge lamp.

It contains an LCD control panel (display), through which all of the settings can be set/modified.

An electronic ballast and power supply provide power to the lamp and electronics of the fixture.

This fixture is designed to operate at 200~240 VAC, 50/60 Hz. There is no internal power selection switch/terminal. It uses an autoswitching power supply and electronic ballast with power factor correction.

16 DMX Channel Mode 1

The DMX 16 channel mode (Basic) provides 16-bit resolution for the Pan/Tilt functions, and 8-bit resolution for the color wheels.

21 DMX Channel Mode 2

The DMX 21 channel mode (Advanced) provides 16-bit resolution for the Pan/Tilt functions, and 8-bit resolution for the color wheels, and dimmer. This also includes additional channels for pan/tilt movement macros, CMY/CTO Speed, and color macros & presets

DMX Channel Summary

16 Channel Mode

CHANNEL	ATTRIBUTE	CHANNEL	ATTRIBUTE
1	Pan	9	Color 2
2	Pan fine	10	Cyan
3	Tilt	11	Magenta
4	Tilt fine	12	Yellow
5	Pan/tilt speed	13	3200 K (CTO) Filter
6	Dimmer	14	Preset Color
7	Shutter	15	Zoom
8	Color 1	16	Function

21 Channel Mode

CHANNEL	ATTRIBUTE	CHANNEL	ATTRIBUTE
1	Pan	12	Magenta
2	Pan fine	13	Yellow
3	Tilt	14	3200K (CTO)
4	Tilt fine	15	CMY/CTO Filter Speed
5	Pan/tilt speed	16	Zoom
6	Dimmer	17	Preset Color
7	Dimmer fine	18	Color Macro
8	Shutter	19	Pan/Tilt Macro
9	Color 1	20	Pan/Tilt Macro Range
10	Color 2	21	Function
11	Cyan		

Product Overview

LCD
Display

Jog
wheel

Power
LED

DMX
LED
indicator

Enter
button

Menu
button

DMX in
(3-pin)

DMX out
(3-pin)

Power
button

Fuseholder
Main

Fuseholder
Lamp

DMX out
(5-pin)

Power
input

DMX in
(5-pin)

Pan lock

Tilt lock

Control panel

Carrying handle
(1 of 2)

Product Dimensions

22.8 in
578 mm

9.6 in
243 mm

7.8 in
198 mm

24.2 in
615 mm

10.4 in
263 mm

31.6 in
803 mm

21.8 in
553 mm

5.6 in
142 mm

17.3 in
440 mm

21.2 in
539 mm

19.1 in
484 mm

19.7 in
500 mm

5.4 in
137 mm

0.9 in
23 mm

20.5 in
521 mm

13.8 in
351 mm

3. Setup

AC Power

This fixture has an auto-switching power supply that can work with an input voltage range of 200~240 VAC, 50/60 Hz.

⚠️ ***Always connect the fixture to a protected circuit with an appropriate electrical ground to avoid the risk of electrocution or fire.***

To determine the power requirements for a particular fixture, see the label affixed to the back plate of the fixture or refer to the fixture's specifications chart. A fixture's listed current rating indicates its average current draw under normal conditions.

⚠️ ***Never connect the fixture to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.***

Fuse Replacement

1. With a Phillips #2 screwdriver, unscrew the fuse holder from its housing.
2. Remove the damaged fuse from its holder and replace with exact same type and rating fuse.
3. Screw the fuse holder back in its place and reconnect power.

The fuse is located inside this compartment.
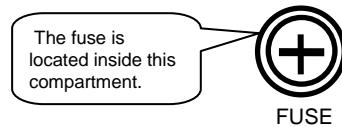
FUSE

⚠️ ***Disconnect the power cord before replacing the fuse and always replace it with a fuse of the same type and rating.***

Fixture Linking

If using multiple DMX compatible fixtures, it is possible to control them individually with a single DMX controller or to run them synchronized in a master/slave operating mode. DMX compatible fixtures use a serial data link between them. The connection between fixtures follows a daisy chain pattern (the DMX output of a fixture connects to the DMX input of the next fixture, and so on).

When using a DMX controller, the combined number of channels required by all the fixtures on the serial data link determines the number of fixtures the DMX controller can support.

ⓘ ***To comply with the EIA-485 standard, which is the base for the DMX standard, do not connect more than 32 fixtures without using a DMX optically-isolated splitter. Doing otherwise may result in deterioration of the digital DMX signal.***

Data Cabling

You must use DMX compliant data cables to link two or more DMX compatible fixtures together. You may purchase CHAUVET certified DMX cables directly from a dealer/distributor or construct your own cable.

(i) *USITT recommends limiting the total length of the DMX cable (from the first fixture/controller to the last fixture) to 300 ~ 455 m (985 ~ 1,500 ft).*

If you choose to create your own cable, make sure to use data-grade cables that can carry a high frequency signal and are less prone to electromagnetic interference. Use a Belden© 9841 or equivalent cable, which meets the specifications for EIA RS-485 applications.

(i) *Do not use standard microphone cables for DMX applications because they cannot transmit DMX data reliably over long distances.*

DMX Data Cable

The data cable must have the following characteristics:

Type:	*shielded, 2-conductor twisted pair*
Maximum capacitance between conductors:	*30 pF/ft*
Maximum capacitance between conductor and shield:	*55 pF/ft*
Maximum resistance:	*20 ohms/1000 ft*
Nominal impedance:	*100 ~ 140 ohms*

DMX Cable Connectors

Each DMX cable must have a male, 3 or 5-pin XLR connector on one end and a female, 3 or 5-pin XLR connector on the other end.

120 ohm, ¼ W resistor between pin 2 (DMX -) and pin 3 (DMX +) on the output of the last fixture.

DMX Connector
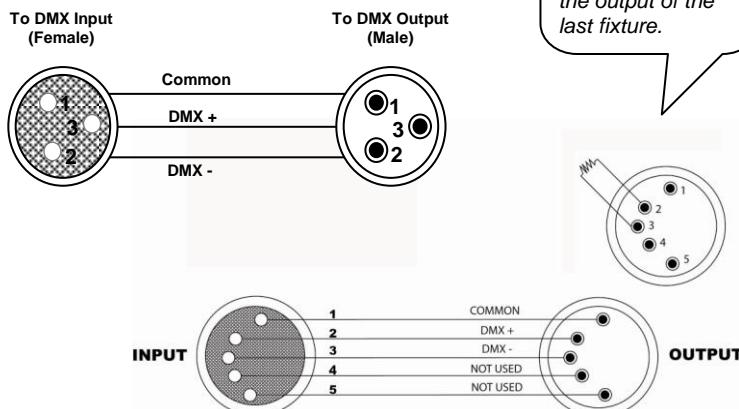
To avoid signal transmission problems and interference, it is always advisable to connect a DMX signal terminator, as seen below.

120 ohm, ¼ W resistor between pin 2 (DMX -) and pin 3 (DMX +) on the output of the last fixture.
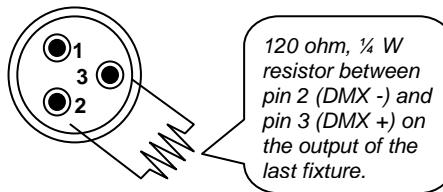
(i) *Test all DMX cables with an ohmmeter to verify their correct polarity and to make sure that there are no short-circuits between any of the pins, or between any pin and ground. If the Common wire touched the chassis ground, a ground loop could form, which may cause the fixture to perform erratically.*

3-Pin to 5-Pin Conversion Chart

It may be necessary to use a 3-pin to 5-pin adapter. Please see the chart below for further explanation.

3-PIN TO 5-PIN CONVERSION CHART

Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
Data (-) signal	Pin 2	Pin 2
Data (+) signal	Pin 3	Pin 3
Not used		Pin 4
Not used		Pin 5

You may use the 3-pin input with the 5-pin output. You may also use 5-pin input with the 3-pin output. However, you may NOT use both the 3-pin and the 5-pin outputs simultaneously.

DMX Data Connection

The fixture uses the DMX data connection for its DMX 16 & 21 Channel modes. See the "Introduction" chapter for a description of the two DMX Channel modes and the "Operation Instructions" chapter to learn how to configure the fixture appropriately for this mode.

1. Connect the male connector of the first DMX cable to the DMX Output connector (female) of the DMX controller.
2. Connect the, female connector of the first DMX cable coming from the controller to the DMX Input connector (male) of the first fixture.
3. Connect the male connector of the second DMX cable to the DMX Output connector (female) of the first fixture.
4. Connect the female connector of the second DMX cable coming from the first fixture to the DMX Input connector of the second fixture.
5. Continue linking the other fixtures in the same way.

DMX Data Connection Diagram
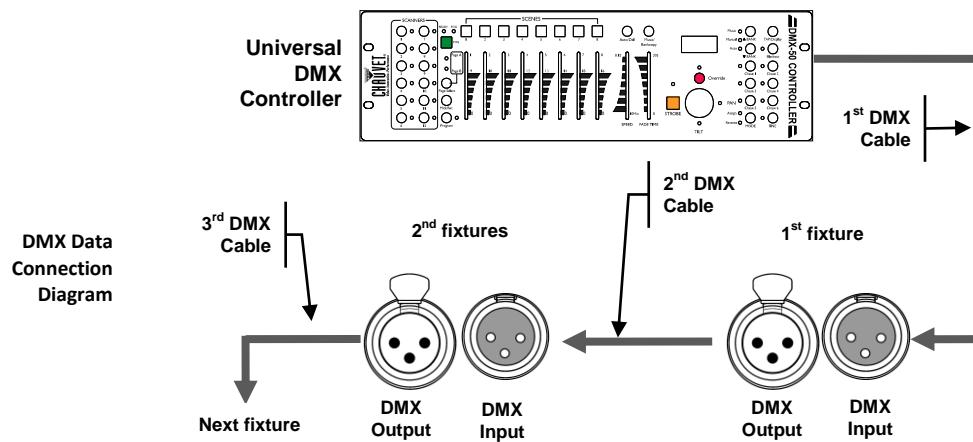
CHAUVET Certified DMX Data Cables

Order Code	Description
DMX1.5	DMX Cable 1.5 m/4.9 ft
DMX4.5	DMX Cable 4.5 m/14.8 ft
DMX10	DMX Cable 10 m/32.8 ft

Mounting

Orientation

⚠ *Only mount this fixture in a horizontal position, either hanging or standing, as indicated in the diagram below. Be sure that there is adequate room for ventilation and for the pan/tilt motion of the fixture. Doing otherwise may void this fixture's warranty and cause damage to the fixture.*

Standing position

Hanging position

Standing position
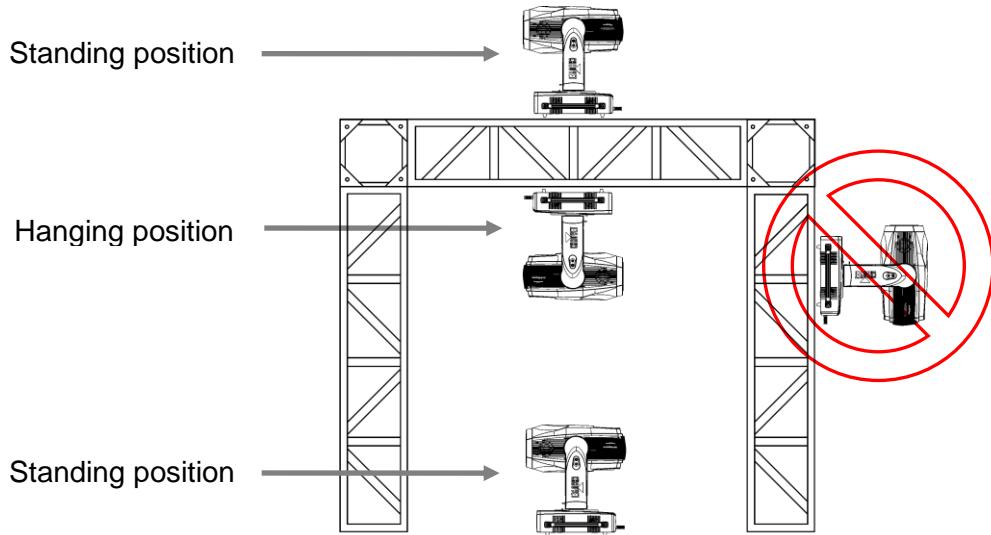
Rigging

The Legend™ 1200E Wash ships in a flight case specially designed to fit the fixture. There are two omega brackets with clamps included in the flight case.

- When selecting an installation location, consider ease of access to the fixture for operation, lamp replacement, programming adjustment(s) and routine maintenance.
- Never mount the fixture in places where rain, high humidity, extreme temperature changes or restricted ventilation may affect it.
- Make sure that the location where you are mounting the fixture can support its weight. Please see the "Technical Specifications" section of this manual for the weight requirement of this fixture.

Safety

Omega brackets with clamps
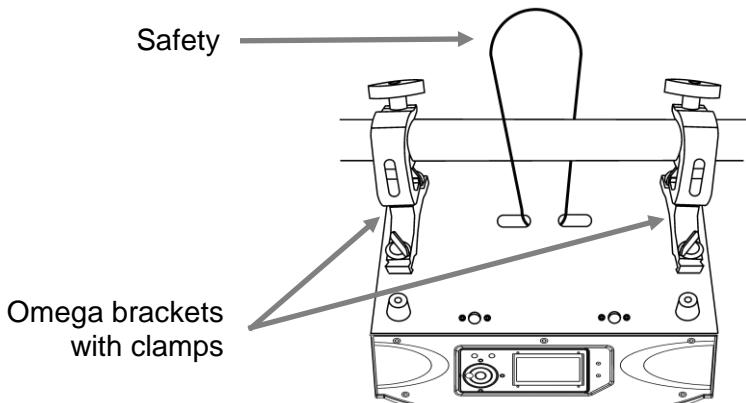
Orientation (bracket installation)

The brackets in this fixture may be mounted on either side of the mounting plate, thus allowing for a 90° rotation of the fixture. Please see the diagram below for further explanation.

Location 1

Control Panel

Location 2

Control Panel
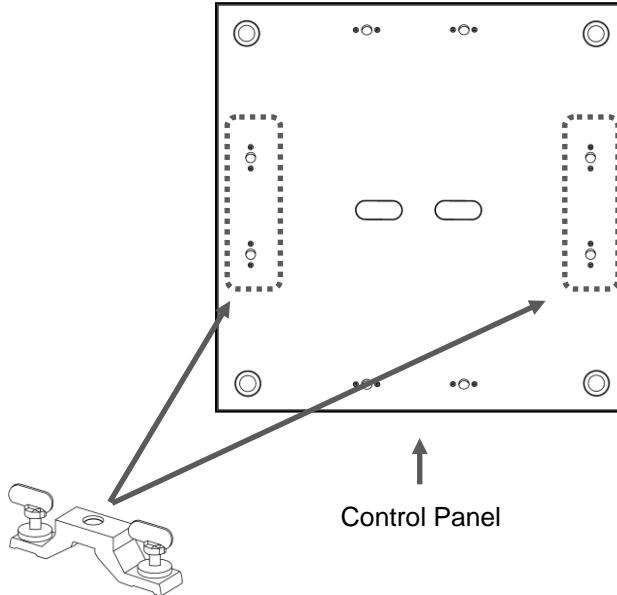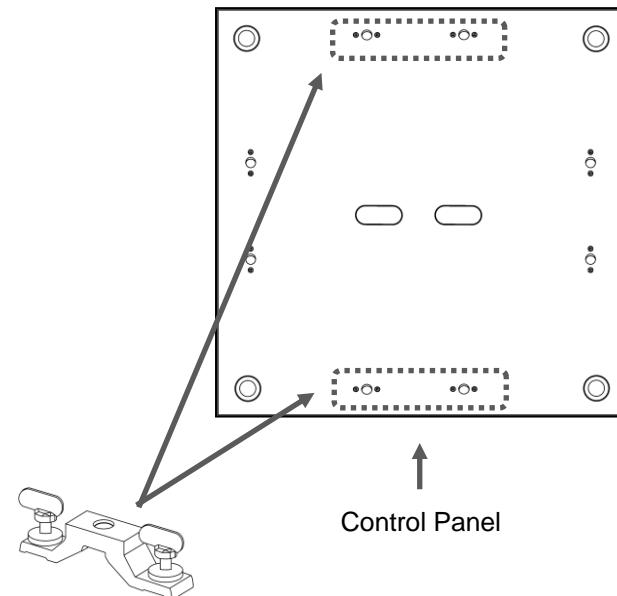
Lamp

When replacing the lamp, please wait at least 15 min after powering down to allow the unit to cool! More time may be necessary.

Always disconnect from main power prior to lamp replacement.

Do not touch the envelope (glass area) of the bulb with bare hands. If this happens, clean the lamp with isopropyl alcohol and wipe it with a lint free cloth before installation.

You should use cotton or latex gloves to avoid from touching the lamp envelope with your bare hands.

Lamp cover
¼ - turn screws

WARNING!

Disconnect the fixture from AC power before re-lamping.
Hot lamp! Risk of fire! Protect hands and eyes.
Wait at least 15 min. before opening the covers
and removing lamp from the fixture.

Maximum room temperature ta=40°C
Minimum distance from flammable material d=1.2m
Exterior surface temperature T=80°C. Not for domestic use.

Adjust lamp position
by turning screws A, B, and C

Remove the screws Ⓧ
and Ⓨ for re-lamping
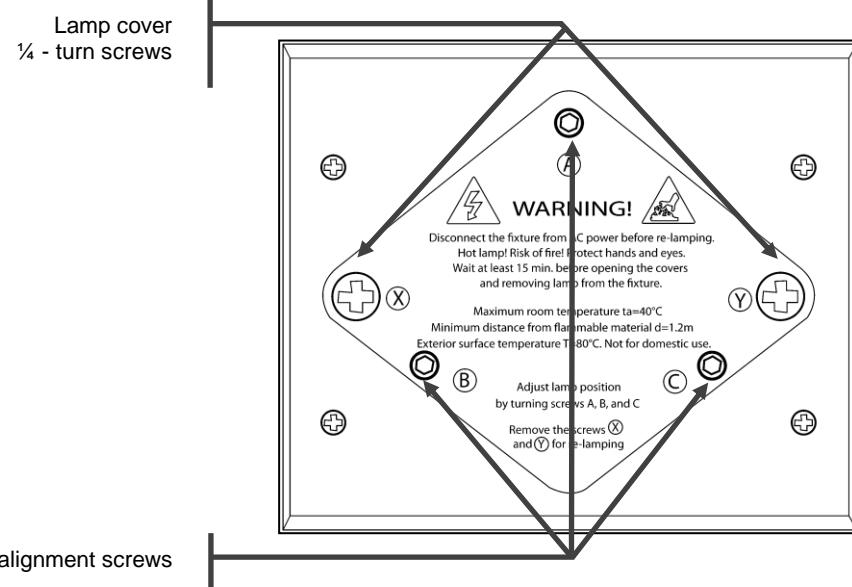
Lamp alignment screws

Lamp

Lamp Installation

The lamp in this fixture is not common and requires specific installation procedures. Please see the diagram, along with the set of instructions, below for further explanation.

1. Disconnect power from the fixture and allow it to cool.
2. Lock the head of the fixture.
3. Unscrew the two ¼ - turn screws (X & Y) to open the rear lamp cover (this will remain attached via a rotating arm).
4. If you are replacing a lamp, you will need to remove the old lamp from the fixture. Using your thumb and forefinger, grasp the ceramic base of the lamp and turn it 45° counterclockwise to the unlocked position. Then, pull it straight out of the fixture, being careful not to touch the sides of the reflector or housing.
5. The lamp base has two metal contacts, one narrow and one wide, which fit into the corresponding narrow and wide slots in the lamp holder. Align the new lamp with these slots in the lamp holder, and slide the lamp into the fixture until the contacts are fully inserted. Using your thumb and forefinger, grasp the ceramic base of the lamp and turn it 45° clockwise to the locked position.
6. Close the rear lamp cover, and tighten the two ¼ - turn screws (X & Y).
7. After installing a new lamp, reset the lamp hour counter (see "Menu Map" for the menu option to perform this reset).

You should use cotton or latex gloves to avoid from touching the lamp envelope with your bare hands.

Locked   **Unlocked**
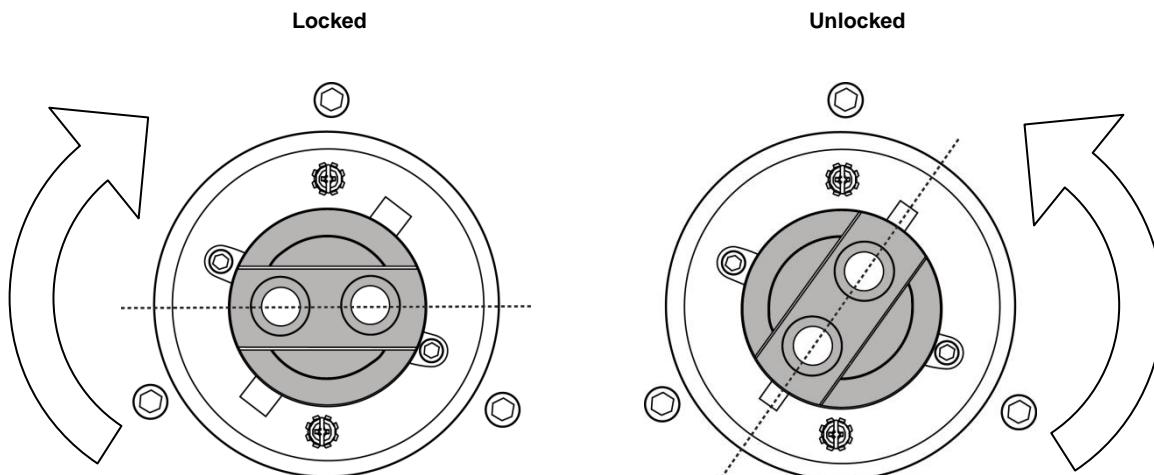
Maximizing the Life of Your Lamp

To ensure the longest and most efficient use of the lamp, always wait between 10~15 min before re-applying power after a shutdown. Failure to do so could result in premature aging of the lamp and failure of the electronics that drive it.

Never turn off the power to the unit while the lamp is striking. Always wait 15 min after powering on the fixture before powering it down. Turning off the lamp during striking may permanently damage the lamp.

4. Operating Instructions

Navigating the Control Panel

Access the control panel functions using the two panel buttons located directly to the right of the LCD Display. Please see the chart, diagram, and set of instructions, below for further explanation.

Button	Function
<MENU>	Used to access the menu or to return to a previous menu option
<ENTER>	Used to select and store the current menu option within a menu
<JOG WHEEL>	Used to scroll through the menu options, and to modify the value of a setting

Jog Wheel

Menu button

Enter button
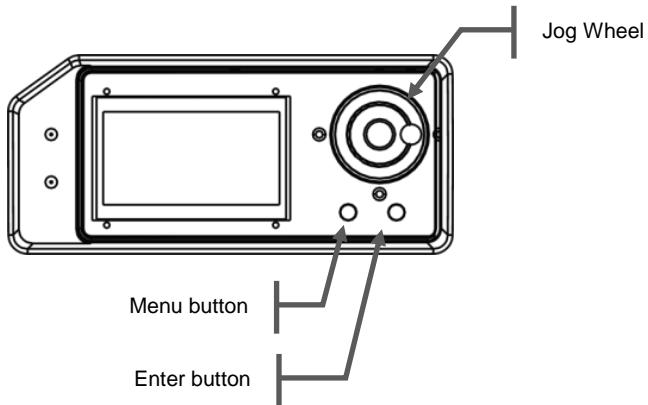
The Control Panel LCD Display shows the menu items you select from the "menu map" section. When a menu function is selected, the display will show the first available option for the selected menu function.

To select a menu item, press **<ENTER>**.

Press **<MENU>** repeatedly until the home screen is displayed. Press **<MENU>** one more time. This is the top of the menu map.

Use the **<JOG WHEEL>** to navigate the menu map and menu options.

Press **<ENTER>** to access the menu function currently displayed or to enable a menu option.

To return to the previous option or menu without changing the value, press **<MENU>**.

Menu Map

| Main Function	Sub Function	Selection	Instruction
DMX Functions	*DMX Address*	*1~512*	DMX starting address assignment
	DMX Channel Mode	*Mode 1 (16)*	Operating mode: Basic
		Mode 2 (21)	Operating mode: Advanced
	View DMX Value	-	View the DMX input values (only from the starting address through the last channel of the mode (23/31)
Fixture Settings	*Pan Inverse*	*Yes/No*	Inverts the Pan operation from 540~0
	Tilt Inverse	*Yes/No*	Inverts the Tilt operation from 270~0
	Bl.o. P/T Moving	*Yes/No*	Enables Blackout while pan/tilt moving
	Bl.o. Color Change	*Yes/No*	Enables Blackout while Color moving
Lamp Settings	*On/Off*	-	Manual Control of the lamp state
	State/Power On	*On/Off*	Automatically strikes the lamp upon powering on the fixture
	Off Via DMX	*Yes/No*	Allows remote Lamp Off commands to be received via DMX
	On if DMX On	*Yes/No*	Strikes the lamp if DMX is present
	Off if DMX Off	*Yes/No*	Turns off the lamp if DMX is not present
	Cooling Mode	*High*	Maintains the fans at highest speed, regardless of lamp temperature
		Auto	Maintains the lowest (most silent), possible fan speed, according to the lamp temperature
	Ignition Delay	*0~255*	Delays striking the lamp to allow for lower inrush currents
	Low Power Delay	*0~255*	Sets the time activating delay between the shutter/dimmer closing and the lamp power reduction. The maximum delay is 255 seconds
Display Settings	*Display Inverse*	*Yes/No*	Inverts the display graphics 180°
	Back Light Auto Off	*Yes/No*	Turns off the backlight after several seconds of being idle
	Back Light Intensity	*1~10*	Sets the backlight intensity from dim to bright
	Temperature Unit	*°C*	Displays the temperature in Celsius
		°F	Displays the temperature in Fahrenheit
Fixture Test	*Auto Test*	-	Runs the fixture, testing each function in series
	Manual Test	-	Manually control each function of the fixture directly from the control panel without a DMX controller; for testing/troubleshooting purposes
Fixture Information	*Fixture use time*	-	Displays the amount of time the fixture has been operating
	Lamp On Time	*Exit*	Exits this function
		Reset Time	Resets the lamp time (used when replacing the lamp in the fixture)
	Firmware Version	-	Displays the firmware version of each software chip
Reset Function	*Pan & Tilt*	*Yes/No*	Resets the pan & tilt, independent of the other motors
	Color	*Yes/No*	Resets the color wheel, CMY, & 3200 K (CTO) dichroic flags, independent of the other motors
	Shutter & Dimmer	*Yes/No*	Resets the shutter & dimmer, independent of the other motors
	Zoom	*Yes/No*	Resets the zoom, independent of the other motors
	All	*Yes/No*	Resets all motors in the fixture simultaneously
Special Functions	*Fixture Maintenance*	*Interval*	User can set the custom time for this Warning message
		Leaving Time	Shows the time remaining from the current interval user time
	Factory Settings	*Yes/No*	Resets all settings to the factory defaults, with the exception of the motor offset settings

Operation

Home Screen

By default, when the fixture is operating under normal circumstances, the display screen will list critical information. Please see the diagram, along with the set of instructions, below for further explanation.

Error Alert Icon

Current DMX Address

DMX Address

001

⚠

Internal Fixture Temperature

Md.1   21Ch.   Temp.   48°C
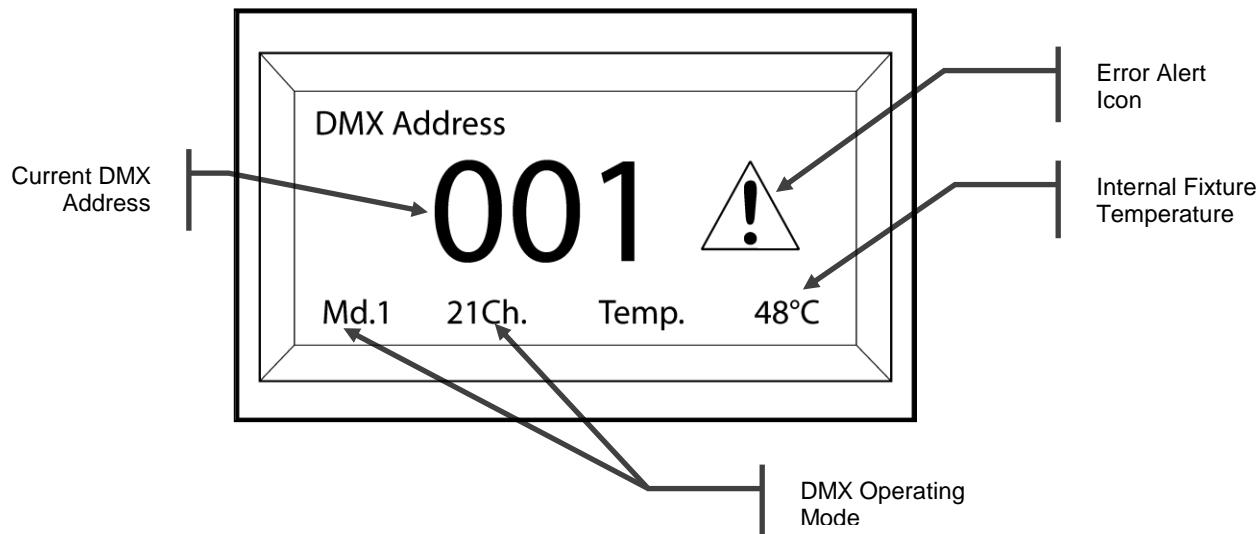
DMX Operating Mode

DMX Operation

This is the explanation of how to setup the fixture to operate with a DMX controller. Please see the set of instructions below for further explanation.

1. Press **<MENU>.**
2. Select: *DMX Functions>DMX Address>.*
3. Rotating the **<JOG WHEEL>,** select a DMX address.
4. Press **<ENTER>.**

Resetting the Fixture

If there is an operation error in this fixture, a fixture reset will often correct such a problem. Please see the set of instructions below for further explanation.

1. Press **<MENU>.**
2. Select: *Fixture Test.*
3. Rotating the **<JOG WHEEL>,** select *Manual Test* or *Auto Test.*
4. Press **<ENTER>.**

Factory Default Reset

You may reset all settings to the factory default from the LCD display. Please see the set of instructions below for further explanation.

1. Press **<MENU>.**
2. Select: *Special Function<Factory Settings.*
3. Rotating the **<JOG WHEEL>,** select *Yes* or *No*.
4. Press **<ENTER>.**

ⓘ   *Please be aware that this action will cause all settings to revert to the state they were at when the fixture shipped from the manufacturer.*

ⓘ   *This will not affect the home position adjustments.*

Lamp Dousing

Due to the extreme heat produced by the lamp, closing the shutters/dimmers for an extended period will cause a build-up of heat. However, a function in the fixture will automatically reduce the power to the lamp when the shutters/dimmers are closed. This will reduce the heat, and prolong the life of the fixture.

There is a time delay for which this feature will activate. Please see the set of instructions below for further explanation.

1. Press **<MENU>.**
2. Select: *Lamp Settings>Low Power Delay.*
3. Rotating the **<JOG WHEEL>,** select 0~255s. This is the actual time delay.
4. Press **<ENTER>.**

Fixture Maintenance

This fixture has a user-selectable period for routine maintenance. This setting will cause an error alert icon to appear on the home screen. Please see the set of instructions below for further explanation.

1. Press **<MENU>.**
2. Select: *Special Function>Fixture Maintenance>Interval.*
3. Rotating the **<JOG WHEEL>,** select the actual time delay.
4. Press **<ENTER>.**

Lamp Settings

You may modify several parameters for the lamp's on/off state as well as the lamp cooling. Please see the set of instructions below for further explanation.

Select: *Lamp Settings>On/Off*
Manually control the current state of the lamp.

Select: *Lamp Settings>State Power On*
When activated, the lamp will strike immediately upon the fixture receiving power, provided that there is no ignition delay applied.

Select: *Lamp Settings>Off via DMX*
Allows remote Lamp Off through DMX.

Select: *Lamp Settings>On if DMX On*
When activated, the fixture will attempt to strike the lamp when DMX is received by the fixture.

Select: *Lamp Settings> Off if DMX Off*
When activated, the fixture will attempt to turn off the lamp when DMX is lost by the fixture.

Select: *Lamp Settings> Cooling Mode> High*
Manually set fans to maximum cooling level.

Select: *Lamp Settings> Cooling Mode> Auto*
Manually set fans to automatic cooling.

Select: *Lamp Settings> Ignition Delay*
This will cause an ignition delay upon power up the fixture, if the State Power On option is activated.

Menu Map *(Cont.)*

Home position
Adjustment

The "home position" is the location the fixture finds during the reset (home) process. This is commonly known as electronic adjustment.

This is a hidden menu in the fixture. If the home position of one of the motors becomes misaligned, you can use this menu to realign/offset the function. Please see the chart, along with the set of instructions, below for further explanation.

1. Press **<MENU>** repeatedly until you reach the main menu. This includes any menu option in the leftmost column of the "Menu Map" section of this manual.

2. Press and hold **<ENTER>** for 5s until the screen reads *Offset Menu.*

3. Scroll to the desired attribute using the **<JOG WHEEL>**.

4. Press **<ENTER>**.

5. Rotating the **<JOG WHEEL>,** adjust the home position of the selected attribute.
6. Once the position has been selected, press **<ENTER>**.
7. Press **<MENU>** repeatedly to back out of the function and return to the home screen.

The "home position" for each motor will change as the position is selected.

Main Function	Instruction
Pan	*Pan motor offset*
Tilt	*Tilt motor offset*
Shutter	*Shutter motor offset*
Color	*Color motor offset*
Cyan	*Cyan dichroic flag motor offset*
Magenta	*Magenta dichroic flag motor offset*
Yellow	*Yellow dichroic flag motor offset*
3200 K Filter	*3200 K Filter dichroic flag motor offset*
Zoom	*Zoom motor offset*

Error Messages

When the error alert icon appears on the home screen, press <ENTER> to view the error information. Please see the chart below for further explanation.

Once an error has been resolved, you may perform a fixture reset to remove the message from the home screen.

| Message	Description
Lamp Startup Fail	Failed to strike the lamp after 1 minute (1 attempt).
Lamp Hot Protection	The lamp has reached a temperature between 105° C and 109° C; the lamp will operate at half power while at these temperatures to attempt to bring the temperature to normal levels
Lamp Hot Power Off	The lamp has reached 110° C or higher, and has been turned off as a safety precaution
Maintenance Fixture	The user-selected time for maintenance has been reached
Fan1 Error	Fan 1 has malfunctioned
Fan2 Error	Fan 2 has malfunctioned
Fan3 Error	Fan 3 has malfunctioned
Fan4 Error	Fan 4 has malfunctioned
CPU-B Error	Communication malfunction with CPU-B
CPU-C Error	Communication malfunction with CPU-C
CPU-D Error	Communication malfunction with CPU-D
CPU-E Error	Communication malfunction with CPU-E
Pan Home Sensor Error	The pan has failed to reset/home properly; check sensor, magnet, or pan lock
Pan Encode Error	The pan encoding/optical sensor has malfunctioned
Tilt Home Sensor Error	The tilt has failed to reset/home properly; check sensor, magnet, or tilt lock
Tilt Encode Error	The tilt encoding/optical sensor has malfunctioned
Color 1 Reset Fail	The color wheel 1 has failed to reset/home
Color 2 Reset Fail	The color wheel 2 has failed to reset/home
Cyan Reset Fail	The dichroic shutter for cyan has failed to reset/home
Magenta Reset Fail	The dichroic shutter for magenta has failed to reset/home
Yellow Reset Fail	The dichroic shutter for yellow has failed to reset/home
3200K Filter Reset Fail	The dichroic shutter for 3200 K CTO Filter has failed to reset/home
Zoom Reset Fail	The zoom has failed to reset/home
Memory Initial Reset Fail	Memory malfunction or miscommunication; chip: 24C256
Temperature Sense Fail	The temperature sensor is not responding
Lamp On Over 700 Hour	The lamp has been operating for over 700 hours, please consult the lamp manufacturer's rating for the lamp This can be reset in the control panel of the fixture

DMX Channel Values

16 channel mode (Basic)

CHANNEL	VALUE	FUNCTION
1	000 ⇔ 255	**Pan** 0 ⇔ 540
2	000 ⇔ 255	**Pan fine**
3	000 ⇔ 255	**Tilt** 0 ⇔ 270
4	000 ⇔ 255	**Tilt fine**
5	000 ⇔ 255	**Pan/tilt Speed** Fast ⇔ slow
6	000 ⇔ 255	**Dimmer** 0% ⇔ 100%
7	000 ⇔ 007 008 ⇔ 015 016 ⇔ 131 132 ⇔ 167 168 ⇔ 203 204 ⇔ 239 240 ⇔ 247 248 ⇔ 255	**Shutter** Closed Open Shutter (slow ⇔ fast) Slow open ⇔ fast closed (slow ⇔ fast) Slow closed ⇔ fast open (slow ⇔ fast) Slow open ⇔ slow closed (slow ⇔ fast) Random Strobe Open
8	000 ⇔ 007 008 ⇔ 015 016 ⇔ 023 024 ⇔ 031 032 ⇔ 039 040 ⇔ 047 048 ⇔ 055 056 ⇔ 063 064 ⇔ 127 128 ⇔ 189 190 ⇔ 193 194 ⇔ 255	**Color 1** Open (white) UV Purple Orange Yellow Green Pink Blue Red Split Colors Counter-clockwise rotation (fast ⇔ slow) Stop Clockwise rotation (slow ⇔ fast)
9	000 ⇔ 007 008 ⇔ 015 016 ⇔ 023 024 ⇔ 031 032 ⇔ 039 040 ⇔ 047 048 ⇔ 055 056 ⇔ 063 064 ⇔ 127 128 ⇔ 189 190 ⇔ 193 194 ⇔ 255	**Color 2** Open (white) Dark Blue Pink Light Yellow Light Green Light Blue Magenta 5600 K Split Colors Counter-clockwise rotation (fast ⇔ slow) Stop Clockwise rotation (slow ⇔ fast)
10	000 ⇔ 255	**Cyan** 0% ⇔ 100%
11	000 ⇔ 255	**Magenta** 0% ⇔ 100%
12	000 ⇔ 255	**Yellow** 0% ⇔ 100%
13	000 ⇔ 255	**3200 K/CTO Filter** 0% ⇔ 100%

CHANNEL	VALUE	
14	000 ⇔ 021 022 ⇔ 042 043 ⇔ 063 064 ⇔ 085 086 ⇔ 106 107 ⇔ 127 128 ⇔ 148 149 ⇔ 170 171 ⇔ 191 192 ⇔ 212 213 ⇔ 233 234 ⇔ 255	**Preset Color** Open (white) Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 11
15	000 ⇔ 007 008 ⇔ 255	**Zoom** No Function 0% ⇔ 100%
16	000 ⇔ 069 070 ⇔ 079 080 ⇔ 089 090 ⇔ 099 100 ⇔ 109 110 ⇔ 129 130 ⇔ 139 140 ⇔ 149 150 ⇔ 159 160 ⇔ 169 170 ⇔ 179 180 ⇔ 189 190 ⇔ 199 200 ⇔ 209 210 ⇔ 229 230 ⇔ 239 240 ⇔ 255	**Function** No function Pan/tilt move-in-black (enable) Pan/tilt move-in-black (disable) Color move-in-black (enable) Color move-in-black (disable) No function Lamp On Pan/tilt reset Color reset No function Shutter reset Zoom reset No function Reset all No function Lamp off No function

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21 channel mode (Advanced)

CHANNEL	VALUE	FUNCTION
1	000 ⇔ 255	**Pan** 0 ⇔ 540
2	000 ⇔ 255	**Pan fine**
3	000 ⇔ 255	**Tilt** 0 ⇔ 270
4	000 ⇔ 255	**Tilt fine**
5	000 ⇔ 255	**Pan/tilt Speed** Fast ⇔ slow
6	000 ⇔ 255	**Dimmer** 0% ⇔ 100%
7	000 ⇔ 255	**Dimmer fine**
8	000 ⇔ 007 008 ⇔ 015 016 ⇔ 131 132 ⇔ 167 168 ⇔ 203 204 ⇔ 239 240 ⇔ 247 248 ⇔ 255	**Shutter** Closed Open Shutter (slow ⇔ fast) Slow open ⇔ fast closed (slow ⇔ fast) Slow closed ⇔ fast open (slow ⇔ fast) Slow open ⇔ slow closed (slow ⇔ fast) Random Strobe Open
9	000 ⇔ 007 008 ⇔ 015 016 ⇔ 023 024 ⇔ 031 032 ⇔ 039 040 ⇔ 047 048 ⇔ 055 056 ⇔ 063 064 ⇔ 127 128 ⇔ 189 190 ⇔ 193 194 ⇔ 255	**Color 1** Open (white) UV Purple Orange Yellow Green Pink Blue Red Split Colors Counter-clockwise rotation (fast ⇔ slow) Stop Clockwise rotation (slow ⇔ fast)
10	000 ⇔ 007 008 ⇔ 015 016 ⇔ 023 024 ⇔ 031 032 ⇔ 039 040 ⇔ 047 048 ⇔ 055 056 ⇔ 063 064 ⇔ 127 128 ⇔ 189 190 ⇔ 193 194 ⇔ 255	**Color 2** Open (white) Dark Blue Pink Light Yellow Light Green Light Blue Magenta 5600 K Split Colors Counter-clockwise rotation (fast ⇔ slow) Stop Clockwise rotation (slow ⇔ fast)
11	000 ⇔ 255	**Cyan** 0% ⇔ 100%
12	000 ⇔ 255	**Magenta** 0% ⇔ 100%
13	000 ⇔ 255	**Yellow** 0% ⇔ 100%
14	000 ⇔ 255	**3200 K/CTO Filter** 0% ⇔ 100%
15	000 ⇔ 255	**CMY/CTO Speed** Fast ⇔ slow
16	000 ⇔ 007 008 ⇔ 255	**Zoom** No Function 0% ⇔ 100%

CHANNEL	VALUE	FUNCTION
17	000 ⇔ 021 022 ⇔ 042 043 ⇔ 063 064 ⇔ 085 086 ⇔ 106 107 ⇔ 127 128 ⇔ 148 149 ⇔ 170 171 ⇔ 191 192 ⇔ 212 213 ⇔ 233 234 ⇔ 255	**Preset Color** Open (white) Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 11
18	000 ⇔ 007 008 ⇔ 028 029 ⇔ 049 050 ⇔ 069 070 ⇔ 090 091 ⇔ 110 111 ⇔ 131 132 ⇔ 152 153 ⇔ 172 173 ⇔ 193 194 ⇔ 213 214 ⇔ 234 235 ⇔ 255	**Color Macro** Open Macro 1 Macro 2 Macro 3 Macro 4 Macro 5 Macro 6 Macro 7 Macro 8 Macro 9 Macro 10 Macro 11 Macro 12
19	000 ⇔ 007 008 ⇔ 015 016 ⇔ 023 024 ⇔ 031 032 ⇔ 039 040 ⇔ 047 048 ⇔ 055 056 ⇔ 063 064 ⇔ 071 072 ⇔ 079 080 ⇔ 087 088 ⇔ 095 096 ⇔ 103 104 ⇔ 111 112 ⇔ 119 120 ⇔ 127 128 ⇔ 135 136 ⇔ 143 144 ⇔ 151 152 ⇔ 159 160 ⇔ 167 168 ⇔ 175 176 ⇔ 183 184 ⇔ 191 192 ⇔ 199 200 ⇔ 207 208 ⇔ 215 216 ⇔ 223 224 ⇔ 231 232 ⇔ 239 240 ⇔ 247 248 ⇔ 255	**Pan/tilt Macro (works with CH.20)** Off Macro 1 Macro 2 Macro 3 Macro 4 Macro 5 Macro 6 Macro 7 Macro 8 Macro 9 Macro 10 Macro 11 Macro 12 Macro 13 Macro 14 Macro 15 Macro 16 Macro 17 Macro 18 Macro 19 Macro 20 Macro 21 Macro 22 Macro 23 Macro 24 Macro 25 Macro 26 Macro 27 Macro 28 Macro 29 Macro 30 Macro 31
20	000 ⇔ 255	**Pan/tilt Macro Range (works with CH.19)** 0% ⇔ 100%
21	000 ⇔ 069 070 ⇔ 079 080 ⇔ 089 090 ⇔ 099 100 ⇔ 109 110 ⇔ 129 130 ⇔ 139 140 ⇔ 149 150 ⇔ 159 160 ⇔ 169 170 ⇔ 179 180 ⇔ 189 190 ⇔ 199 200 ⇔ 209 210 ⇔ 229 230 ⇔ 239 240 ⇔ 255	**Function** No function Pan/tilt move-in-black (enable) Pan/tilt move-in-black (disable) Color move-in-black (enable) Color move-in-black (disable) No function Lamp On Pan/tilt reset Color reset No function Shutter reset Zoom reset No function Reset all No function Lamp off No function

Color Wheel Layout
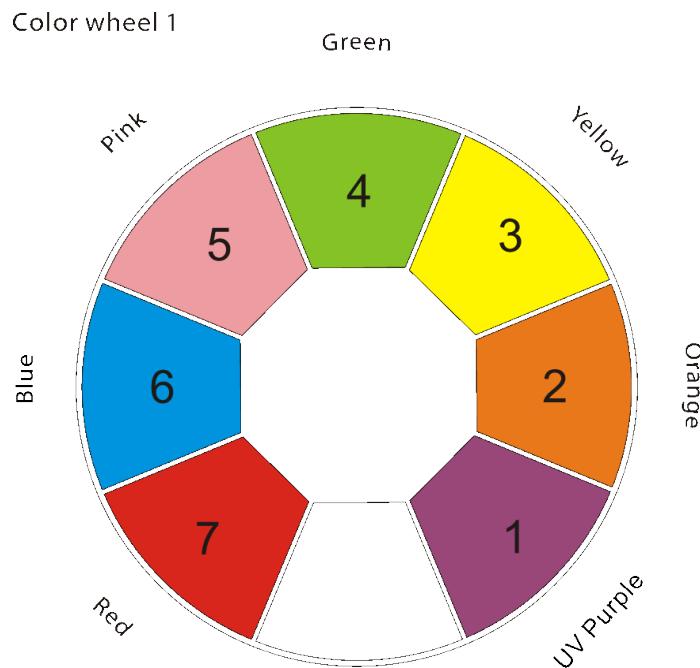
Color wheel 1

Color wheel 2
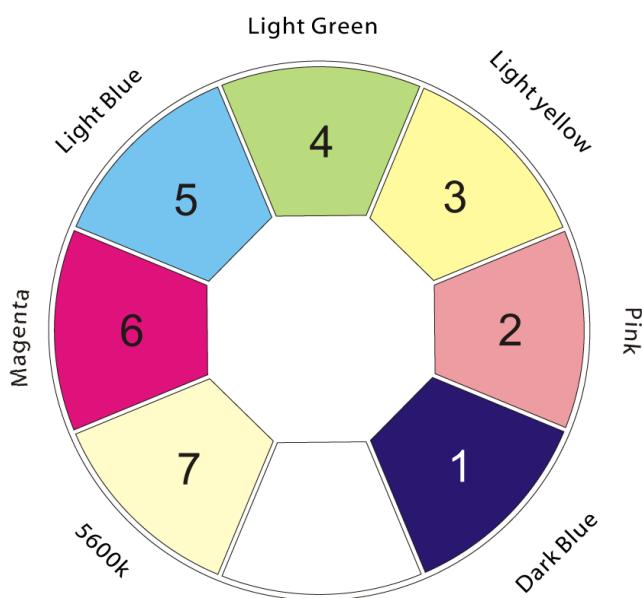
General Maintenance

To maintain optimum performance and minimize wear, the user should clean the fixtures frequently. Usage and environment are contributing factors in determining the cleaning frequency. As a rule, the user should clean the fixtures at least twice a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced lamp life and increased mechanical wear.

For fixtures containing external optical lenses, the user should clean them periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates. Damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics. Even in the cleanest type of surroundings, the user should clean the external optics at least once every 30 days. CHAUVET recommends cleaning the fixture's external optics with a soft cloth using normal glass cleaning fluid.

There is a recommended process for cleaning the fixture. Please see the set of instructions below for further explanation.

- Unplug fixture from power.
- Carefully use a vacuum or air compressor, along with a soft brush, to remove dust collected on external vents and internal components.
- Ensure the fixture is cool. Clean all external optics and glass surfaces with a mild solution of glass cleaner or isopropyl alcohol, using a soft, lint free cotton cloth or lens tissue.
- Apply solution directly to the cloth or tissue and drag dirt and grime to the outside of the lens.
- Gently polish the external glass surfaces until they are free of haze and lint.

Always dry the external optics and glass surfaces carefully after cleaning them.

Never spin a fan using compressed air/vacuum.

Air Filter Cleaning

This fixture contains air filters to reduce dust and debris from building up on the internal components. Please see the diagram below for further explanation.

Although there are air filters present in the vents of this fixture, it is still necessary to perform regular maintenance of the internal components, on a regular interval. This includes the cleaning of the lenses and the dichroic filters.
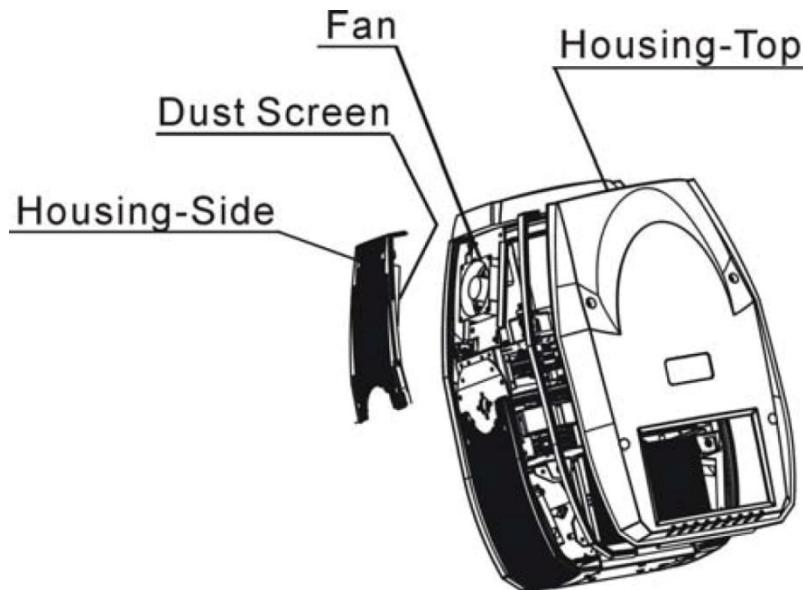
Returns Procedure

The user must send the merchandise prepaid. CHAUVET will not issue call tags.

The user must clearly label the package with a Return Merchandise Authorization Number (RMA #). CHAUVET will refuse any product returned without an RMA #. Call CHAUVET and request an RMA # before shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return.

Be sure to pack the fixture properly. Any shipping damage resulting from inadequate packaging is the customer's responsibility. As a suggestion, the fixture should be returned in the original flight case.

CHAUVET reserves the right to use its own discretion to repair or replace returned product(s).

Once you are given an RMA #, please include the following information on a piece of paper inside the flight case:

- Your name
- Your address
- Your phone number
- The RMA #
- A brief description of the symptoms

Claims

Damage incurred in shipping is the responsibility of the shipper. Therefore, the customer must report any damage to the carrier upon receipt of merchandise. It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture appears damaged due to shipping. The customer must make claims for other issues, such as missing components or parts, damage not related to shipping, or concealed damage to CHAUVET within seven (7) days of receiving merchandise.

Contact Us

World Wide

General Information
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fax: (954).929-5560
toll free: (800) 762-1084

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www.chauvetlighting.com
voice: (954) 929-1115 (Press **4**)
fax: (954) 929-5560 (Attention: **Service**)

World Wide Web
www.chauvetlighting.com

Technical Specifications

WEIGHT & DIMENSIONS (OF FIXTURE)
Length ....17.3 in (440 mm)
Width ....22.8 in (578 mm)
Height ....31.6 in (803 mm)
Weight .... 79.75 lbs (36.17 kg)

For more detailed dimensions, please see the "Product Dimensions" section of this manual.

WEIGHT & DIMENSIONS (OF FIXTURE IN FLIGHT CASE)
Length ....25 in (635 mm)
Width ....28 in (711 mm)
Height ....35 in (889 mm)
Weight .... 191.05 lbs (86.22 kg)

POWER
Auto-ranging electronic power supply (w/PF correction) ...... 200-240 VAC, 50/60 Hz
Fuse... F 15 A, 250 V, 6 x 30 mm, fast-blow
Power Consumption @ 200 V, 50 Hz .... 1,980 W (8.25 A) max
Inrush Power @ 200 V, 50 Hz .... 3.6 A
Power Factor @ 200 V, 50 Hz 0.93
Power Consumption @ 208 V, 60 Hz .... 1,641 W (7.89 A) max
Inrush Power @ 208 V, 60 Hz .... 3.4 A
Power Factor @ 208 V, 60 Hz 0.93
Power Consumption @ 220 V, 50 Hz .... 1,646 W (7.48 A) max
Inrush Power @ 220 V, 50 Hz .... 3.1 A
Power Factor @ 220 V, 50 Hz 0.93
Power Consumption @ 230 V, 50 Hz .... 1,645 W (7.15 A) max
Inrush Power @ 230 V, 50 Hz .... 3.3 A
Power Factor @ 230 V, 50 Hz 0.92
Power Consumption @ 240 V, 50 Hz .... 1,654 W (6.89 A) max
Inrush Power @ 240 V, 50 Hz .... 3.3 A
Power Factor @ 240 V, 50 Hz 0.91

LIGHT SOURCE
Type... 1200 W short arc discharge
Approved lamp .... Phillips MSR1200SA/SE FastFit 6300 K 750 hrs
Socket.. PGJX50

PHOTO OPTIC
Zoom at minimum
Luminance @ 2 m... 19,400 lux
Beam Angle (zoom) .... 30°
Zoom at maximum
Luminance @ 2 m... 84,000 lux
Beam Angle (zoom) .... 15°

Measurement lamp used: Philips® MSR1200SA/SE FastFit™ 6300 K 750 hrs
Measurement conditions: 240 V, 60 Hz, no effects applied

CONTRUCTION
Ingress Protection IP20
Housing.. Self extinguishing ABS (meets CSA approval)
Color ....Black

RANGE
Pan .... 540°
Tilt... 270°

INSTALLATION
Mounting points...two ¼-turn omega brackets
Orientation ....vertically pointing straight down (hanging) or straight up (sitting)
Minimum distance form illuminated surface ....2.5 m (100 in)
Minimum distance form combustible materials.......................................0.2 m (8 in)

THERMAL
Maximum ambient temperature...104° F (40° C)
Maximum surface temperature..135° F (57° C)

SOFTWARE VERSION INFORMATION
CPU-A 2.0
CPU-B 2.0
CPU-C 2.0
CPU-D 2.0
CPU-E 2.0
CPU-I...2.1

CONTROL & PROGRAMMING
Setting and addressing ....Control panel with backlit graphic display
Receiver..Opto-isolated RS-485
Firmware updates ....USB to DMX proprietary device
Data input (3-pin) .... locking 3-pin XLR male socket
Data output (3-pin) .... locking 3-pin XLR female socket
Data pin configuration (3-pin) ....pin 1 shield, pin 2 (-), pin 3 (+)
Data input (5-pin) .... locking 5-pin XLR male socket
Data output (5-pin) .... locking 5-pin XLR female socket
Data pin configuration (5-pin)...... pin 1 shield, pin 2 (-), pin 3 (+), pin 4+5 (not used)
Protocols.. USITT DMX512-A
DMX Channels 16, 21

ORDERING INFORMATION
Legend™ 1200E Wash (ships with flight case) LEGEND1200EWASH

WARRANTY INFORMATION
Warranty .... 2-year limited warranty

DMX Primer

The DMX method enables the use of a universal DMX controller device with DMX compatible fixtures. Each DMX connection has 512 channels and each DMX fixture uses a certain number of sequential DMX channels to provide control to its features.

Starting Address

For the DMX controller to identify each DMX fixture, they must have a unique starting address assigned to them. Defining the fixture's starting address consists of assigning one of the 512 DMX channels to the fixture's first channel. Once this assignment is complete, and based on the number of channels it uses, the fixture will react to the DMX signals sent to the range of DMX channels that starts with the starting address.

For example, a fixture that uses six DMX channels and its starting address is *100*, will accept DMX data sent by the DMX controller to channels 100, 101, 102, 103, 104, and 105.

Personalities

Most DMX fixtures use multiple personalities, each of them with a different number of channels, depending on its complexity. The number of DMX channels used by a fixture may vary from only one (dimmer control) to 15 or more. When the job does not require using all the fixture's capabilities, the user can select a more basic personality, thus allowing the DMX controller to accommodate more DMX fixtures.

Assigning Addresses

Because of the different number of DMX channels used by each fixture, assigning their starting addresses may become a difficult task. The user must assign the individual starting addresses to avoid the overlapping of the DMX Channels. If they do overlap, the affected fixtures could operate erratically.

However, the user can control multiple fixtures of the same type using the same starting address for all of them, as long as the intended result is that they operate in unison. In other words, the fixtures will be slaved together and they will all respond in exactly the same way.

DMX Fixture Connection

DMX fixtures receive DMX data through a Daisy Chain connection. In a Daisy Chain connection, the DATA OUT of one fixture or of the controller connects to the DATA IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a controller communicates to each fixture. The user should always define an order that provides for the easiest and most direct cabling, however.

Each DMX fixture links to the other DMX fixtures and their controller using a DMX cable. A DMX cable consists of a shielded, two conductor twisted pair cable with one 3-pin or 5-pin XLR male connector on one end and a 3-pin or 5-pin XLR female connector on the other end. The shield connection is pin 1, while pin 2 is Data Negative (S-) and pin 3 is Data positive (S+). With 5-pin cables, pins 4+5 are not used. See page the "DMX Cable" section for details about this type of cable.

CHAUVET carries 3-pin XLR DMX compliant cables, DMX-10 (33'), DMX-4.5 (15') and DMX-1.5 (5')